



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,736	04/30/2001	Masaaki Bannai	389.40083X00	9146

20457 7590 12/22/2005

ANTONELLI, TERRY, STOUT & KRAUS, LLP
1300 NORTH SEVENTEENTH STREET
SUITE 1800
ARLINGTON, VA 22209-3873

EXAMINER

BORISSOV, IGOR N

ART UNIT PAPER NUMBER

3639

DATE MAILED: 12/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/843,736

Applicant(s)

BANNAI ET AL.

Examiner

Igor Borissov

Art Unit

3639

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,3,5-8,10,12-15,17,19-23 and 26-29 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 2,3,5-8,10,12-15,17,19-23 and 26-29 is/are rejected.
7) ☒ Claim(s) 2,3 and 5-7 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Art Unit: 3639

DETAILED ACTION

Response to Amendment

Amendment received on 10/14/2005 is acknowledged and entered. Claims 1, 4, 9, 11, 16, 18 and 24-25 have been previously canceled. Claims 2, 7 and 14 have been amended. Claims 2-3, 5-8, 10, 12-15, 17, 19-23 and 26-29 are currently pending in the application.

Claim Objections

Claims 2, 3 and 5-7 are objected to because of the following informalities:

Claim 2 recites: "wherein said measuring means measures said present data of the energy consumption the production ...", which appears to be a spelling error. The remaining Claims are objected to as being dependent on the objected Claim.

Appropriate correction is required.

Examiner's Note

The examiner understands the phrase "*cold or warm heat energy*" as variation of energy usage.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3, 5-8, 10, 12-15, 17, 19-23 and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yablonowski et al. in view of Kitamura et al. (US 5,762,265).

Claim 2. Yablonowski et al. (Yablonowski) teaches a system for monitoring energy consumption of lighting systems, comprising:

Art Unit: 3639

a database for storing energy consumption data before taking energy-saving measures and general information about a facility; measuring means which measures the energy consumption after taking energy-saving measures; and calculating means for calculating energy curtailment quantities before and after taking said energy-saving measures by incorporating measured data obtained by said measuring means via a communication line and comparing said measured data and said energy consumption data stored in said database (C. 3, 49-61; C. 5, L. 9-25; C. 6, L. 54-67); wherein said general information includes variable data related to air conditioning and operation condition, including hours of operation, kilowatt hours rates and whether operating hours vary in different places of the facility (C. 6, L. 28-38).

Yablonowski does not explicitly teach that said data related to air conditioning includes data regarding temperature and humidity of atmosphere.

Kitamura et al. (Kitamura) teaches a system for monitoring an air-conditioning unit, including measuring means for measuring air temperature and humidity in a facility, a database for storing said measured data regarding air temperature and humidity, and means for calculating of savings in energy consumption based on said stored data (C. 13, L. 47-56).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yablonowski to include that said data related to air conditioning includes data regarding temperature and humidity of atmosphere, as disclosed in Kitamura, because it would advantageously allow to provide comfortable air-conditioning control while achieving reasonable saving in energy consumption, as specifically taught in Kitamura (C. 19, L. 66 – C. 20, L. 7).

Claim 3. Same system as in claim 2, including calculating means for calculating the energy curtailment quantities before and after taking said energy-saving measures by incorporating measured data obtained by said measuring means and comparing said measured data and said energy consumption data stored in said database (Yablonowski; C. 6, L. 54-67). Kitamura teaches said

Art Unit: 3639

system for monitoring an air-conditioning unit, including measuring means for measuring air temperature and humidity in a facility, a database for storing said measured data regarding air temperature and humidity, and means for calculating of savings in energy consumption based on said stored data (C. 13, L. 47-56). The motivation to combine Yablonowski and Kitamura would be to provide comfortable air-conditioning control while achieving reasonable saving in energy consumption.

Claims 5. Same system as in Claim 2, including calculating means for calculating the energy curtailment quantities before and after taking said energy--saving measures, and charging an amount obtained by said calculating (Yablonowski; C. 8, L. 30-58).

Claims 6. Same system as in Claim 5. Information as to "*wherein said ratio is determined with reference to the operating hours... of the facility*" does not recite structural limitations, and, therefore, is given no patentable weight. MPEP 2106 (II) (C) states: "Language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation."

Claim 7. Same system as in Claim 5, including calculating means for calculating the energy curtailment quantities before and after taking said energy--saving measures, and charging an amount obtained by said calculating, wherein billing for a time period is calculated as a function of the power saving for that particular time period (C. 8, L. 30-58). Language as to "*if the total amount of the fixed and variable costs is Q, the annual amount of curtailment of energy costs is P, and α and β are positive coefficients (where $\alpha > \beta$), said energy service enterprise receives: X1% of the curtailment amount of energy costs when $P \geq \alpha Q$; X2% of the curtailment amount of energy costs when $\beta Q \leq P < \alpha Q$ (where, $X1 < X2$); and a predetermined amount when $P < \beta Q$* " does not recite structural

Art Unit: 3639

limitations, and, therefore, is given no patentable weight. MPEP 2106 (II) (C) states: "Language that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation." Furthermore, Claims Directed to an Apparatus must be distinguished from the prior art in terms of structure rather than function, *In re Danly* 263 F.2d 844, 847, 120 USPQ 582, 531 (CCPA 1959). Furthermore, a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1657 (bd Pat. App. & Inter. 1987).

Claim 8. Yablonowski teaches a method for monitoring energy consumption of lighting systems, comprising:

installing an energy-saving equipment by the energy service provider at no cost to the facility (client) (C. 7, L. 8-10); measuring and recording the energy consumption data of said energy-saving equipment before and after installation of said equipment, and general information about a facility; calculating the difference in value of the energy consumption before and after installation of said energy-saving equipment; calculating the amount of curtailment of the energy costs based on said calculation; and allowing said energy service provider to collect said installation cost from said amount of curtailment (C. 3, L. 49-61; C. 5, L. 9-25; C. 6, L. 54-67); wherein said general information includes data related to air conditioning and operation condition, including hours of operation, kilowatt hours rates and whether operating hours vary in different places of the facility (C. 6, L. 28-38).

Yablonowski does not explicitly teach that said data related to air conditioning includes data regarding temperature and humidity of atmosphere.

Kitamura et al. (Kitamura) teaches a system for monitoring an air-conditioning unit, including measuring means for measuring air temperature and

Art Unit: 3639

humidity in a facility, a database for storing said measured data regarding air temperature and humidity, and means for calculating of savings in energy consumption based on said stored data, wherein said air temperature and humidity data agree within a set complaint (allowable) range (C. 13, L. 47-56).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yablonowski to include that said data related to air conditioning includes data regarding temperature and humidity of atmosphere, as disclosed in Kitamura, because it would advantageously allow to provide comfortable air-conditioning control while achieving reasonable saving in energy consumption, as specifically taught in Kitamura (C. 19, L. 66 – C. 20, L. 7).

Claim 10. Yablonowski teaches a method for monitoring energy consumption of lighting systems, comprising: installing an energy-saving equipment by the energy service provider at no cost to the facility (client) (C. 7, L. 9-10); measuring and recording the energy consumption data of said energy-saving equipment before and after installation of said equipment, and general information about a facility; calculating the difference in value of the energy consumption before and after installation of said energy-saving equipment; calculating the amount of curtailment of the energy costs based on said calculation (C. 3, L. 49-61; C. 5, L. 9-25; C. 6, L. 54-67); and allowing said energy service provider to receive at least a part of said amount of curtailment (C. 7, L. 11-13); wherein said general information includes data related to air conditioning and operation condition, including hours of operation, kilowatt hours rates and whether operating hours vary in different places of the facility (C. 6, L. 28-38).

Yablonowski does not explicitly teach that said data related to air conditioning includes data regarding temperature and humidity of atmosphere.

Kitamura teaches a method for monitoring an air-conditioning unit, including measuring means for measuring air temperature and humidity in a facility, a database for storing said measured data regarding air temperature and

Art Unit: 3639

humidity, and means for calculating of savings in energy consumption based on said stored data, wherein said air temperature and humidity data agree within a set complaint (allowable) range (C. 13, L. 47-56).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yablonowski to include that said data related to air conditioning includes data regarding temperature and humidity of atmosphere, as disclosed in Kitamura, because it would advantageously allow to provide comfortable air-conditioning control while achieving reasonable saving in energy consumption, as specifically taught in Kitamura (C. 19, L. 66 – C. 20, L. 7).

Claim 12. Said method as in claim 10, wherein calculating the amount of curtailment of the energy costs is conducted based on operation condition data including hours of operation, kilowatt hours rates and whether operating hours vary in different places of the facility (Yablonowski; C. 6, L. 28-38).

Claims 13 . Yablonowski teaches said method as in claim 10, wherein said energy service provider performs maintenance of the equipment subjected to energy-saving measures without compensation (C. 8, L. 52-58), after reviewing the feasibility of the project and profit margin (C. 6, L. 54-65).

However, Yablonowski do not specifically teach that reviewing the feasibility of the project and profit margin includes establishing a predetermined reference value.

However, it is old and well known that cost estimate of a business project includes establishing predetermined reference values, such as calculating break even, cost of manufacturing, goods sold, etc.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yablonowski and Kitamura to include that reviewing the feasibility of the project and profit margin includes establishing a predetermined reference value, because it would advantageously

Art Unit: 3639

allow to employ existing business modeling tools, thereby assure accuracy in estimating funds needed for the project.

Claims 14 and 15. Yablonowski teaches said method as in claim 10, including: calculating the amount of curtailment of the energy costs; and allowing said energy service provider to receive at least a part of said amount of curtailment (C. 3, L. 49-61; C. 5, L. 9-25; C. 6, L. 54-67); wherein billing for a time period is calculated as a function of the power saving for that particular time period (C. 8, L. 40-50).

Yablonowski and Kitamura do not specifically teach that *if the total amount of the fixed and variable costs is Q, the annual amount of curtailment of energy costs is P, and α and β are positive coefficients (where $\alpha > \beta$), said energy service enterprise receives: X1% of the curtailment amount of energy costs when $P \geq \alpha Q$; X2% of the curtailment amount of energy costs when $\beta Q \leq P < \alpha Q$ (where, $X1 < X2$); and a predetermined amount when $P < \beta Q$; and wherein said X2 is calculated by the formula:*

$$X2 = X1 + (\alpha - P/Q)(100-X1)/(\alpha - \beta).$$

However, there is no indication in the specification that said formula provides the advantage over the prior art. Without such indication, it appears that said formula is obvious variation of any known calculation method.

Claim 17. Yablonowski teaches a method for monitoring energy consumption of lighting systems, comprising: conducting feasibility study of a project for installing an energy-saving equipment by the energy service provider (C. 6, L. 54-65); at no cost to the facility (client) (C. 7, L. 8-10); measuring and recording the energy consumption data of said energy-saving equipment after installation of said equipment, and general information about a facility; calculating the difference in value of the energy consumption before and after installation of said energy-saving equipment; calculating the amount of curtailment of the energy costs based on said calculation (C. 3, L. 49-61; C. 5, L. 9-25; C. 6, L. 54-

Art Unit: 3639

67); and providing carefully monitoring and maintenance of the power consumption to insure that the power saving devices continue to function properly (C. 8, L. 52-54), thereby indicating confirming the assured quantity of curtailment; wherein said general information includes air conditioning data, and operation condition data, which includes hours of operation, kilowatt hours rates and whether operating hours vary in different places of the facility (C. 6, L. 28-38).

Yablonowski does not specifically teach that said air conditioning data includes *temperature and humidity data*.

Kitamura teaches said method for monitoring an air-conditioning unit, including measuring means for measuring air temperature and humidity in a facility, a database for storing said measured data regarding air temperature and humidity, and means for calculating of savings in energy consumption based on said stored data, wherein said air temperature and humidity data agree within a set complaint (allowable) range (C. 13, L. 47-56).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yablonowski to include that said data related to air conditioning includes data regarding temperature and humidity of atmosphere, as disclosed in Kitamura, because it would advantageously allow to provide comfortable air-conditioning control while achieving reasonable saving in energy consumption, as specifically taught in Kitamura (C. 19, L. 66 – C. 20, L. 7).

Claim 19. Said method as in claim 17, wherein calculating the amount of curtailment of the energy costs is conducted based on operation condition data including hours of operation, kilowatt hours rates and whether operating hours vary in different places of the facility (Yablonowski; C. 6, L. 28-38).

Art Unit: 3639

Claim 20. Said method as in claim 19, wherein feasibility study of the project is conducted before realization of the project (Yablonowski; C. 6, L. 54-64).

Claim 21. Said method as in claim 17, wherein said energy service provider receives at least a part of said amount of curtailment receive at least a part of said amount of curtailment (Yablonowski; C. 7, L. 9-13); said amount of curtailment compensate the retrofitting and maintenance of said energy efficient equipment (Yablonowski; C. 8, L. 48-58).

Claim 22. Said method as in claim 21, wherein calculating the amount of curtailment of the energy costs is conducted based on operation condition data including hours of operation, kilowatt hours rates and whether operating hours vary in different places of the facility (Yablonowski; C. 6, L. 28-38).

Claim 23. Yablonowski teaches said method as in claim 21, wherein said energy service provider performs maintenance of the equipment subjected to energy-saving measures without compensation (C. 8, L. 52-58), after reviewing the feasibility of the project and profit margin (C. 6, L. 54-65).

However, Yablonowski do not specifically teach that reviewing the feasibility of the project and profit margin includes establishing a predetermined reference value.

However, it is old and well known that cost estimate of a business project includes establishing predetermined reference values, such as calculating break even, cost of manufacturing, goods sold, etc.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yablonowski to include that reviewing the feasibility of the project and profit margin includes establishing a predetermined reference value, because it would advantageously allow to

Art Unit: 3639

employ existing business modeling tools, thereby assure accuracy in estimating funds needed for the project.

Claim 26. Yablonowski teaches a system for monitoring energy consumption of lighting systems, comprising:

a database for storing energy consumption data before taking energy-saving measures and general information about a facility; measuring means which measures the energy consumption after taking energy-saving measures; and calculating means for calculating energy curtailment quantities before and after taking said energy-saving measures by incorporating measured data obtained by said measuring means via a communication line and comparing said measured data and said energy consumption data stored in said database (C. 3, 49-61; C. 5, L. 9-25; C. 6, L. 54-67); wherein said general information includes variable data related to air conditioning and operation condition, including hours of operation, kilowatt hours rates and whether operating hours vary in different places of the facility (C. 6, L. 28-38).

Yablonowski does not explicitly teach that said data related to air conditioning includes data regarding temperature and humidity of atmosphere.

Kitamura teaches said system for monitoring an air-conditioning unit, including measuring means for measuring air temperature and humidity in a facility, a database for storing said measured data regarding air temperature and humidity, and means for calculating of savings in energy consumption based on said stored data (C. 13, L. 47-56).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yablonowski to include that said data related to air conditioning includes data regarding temperature and humidity of atmosphere, as disclosed in Kitamura, because it would advantageously allow to provide comfortable air-conditioning control while achieving reasonable saving in energy consumption, as specifically taught in Kitamura (C. 19, L. 66 – C. 20, L. 7).

Claim 27. Same system as in Claim 26, including calculating means for calculating the energy curtailment quantities before and after taking said energy--saving measures by incorporating measured data obtained by said measuring means and comparing said measured data and said energy consumption data stored in said database (Yablonowski; C. 6, L. 54-67).

Claim 28. Yablonowski teaches a system for monitoring energy consumption of lighting systems, comprising:

a database for storing energy consumption data before taking energy-saving measures and general information about a facility; measuring means which measures the energy consumption after taking energy-saving measures; and calculating means for calculating energy curtailment quantities before and after taking said energy-saving measures by incorporating measured data obtained by said measuring means via a communication line and comparing said measured data and said energy consumption data stored in said database (C. 3, 49-61; C. 5, L. 9-25; C. 6, L. 54-67); wherein said general information includes variable data related to air conditioning and operation condition, including hours of operation, kilowatt hours rates and whether operating hours vary in different places of the facility (C. 6, L. 28-38).

Yablonowski does not explicitly teach that said data related to air conditioning includes data regarding temperature and humidity of atmosphere.

Kitamura teaches said system for monitoring an air-conditioning unit, including measuring means for measuring air temperature and humidity in a facility, a database for storing said measured data regarding air temperature and humidity, and means for calculating of savings in energy consumption based on said stored data (C. 13, L. 47-56).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Yablonowski to include that said data related to air conditioning includes data regarding temperature and humidity of

Art Unit: 3639

atmosphere, as disclosed in Kitamura, because it would advantageously allow to provide comfortable air-conditioning control while achieving reasonable saving in energy consumption, as specifically taught in Kitamura (C. 19, L. 66 – C. 20, L. 7).

Claim 29. Same system as in Claim 28, including calculating means for calculating the energy curtailment quantities before and after taking said energy--saving measures by incorporating measured data obtained by said measuring means and comparing said measured data and said energy consumption data stored in said database (Yablonowski; C. 6, L. 54-67).

Response to Argument

Applicant's arguments filed 10/14/2005 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the power consumption of a power system varies in accordance with temperature and humidity data of the power system) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant argues that Yablonowski fails to disclose of this application in which a database which stores past data about energy consumption of a production facility utilizing cold or warm heat energy before taking energy-saving measures includes the feature of storing the past data in a form correlated with data of temperature and humidity of atmosphere, the feature of measuring present data of the energy consumption of the facility after taking the energy saving measures together with temperature and humidity data, the feature of

Art Unit: 3639

calculating by retrieving the past data having temperature and humidity data within a set allowable range corresponding to the measured present data having the temperature and humidity data, and the feature of calculating the energy curtailment quantities by comparing the retrieved past data having temperature and humidity data and the measured present data having the temperature and humidity data.

In response to this argument, it is pointed out that Yablonowski was applied to show: a database for storing energy consumption data before taking energy-saving measures and general information about a facility; measuring means which measures the energy consumption after taking energy-saving measures; and calculating means for calculating energy curtailment quantities before and after taking said energy-saving measures by incorporating measured data obtained by said measuring means via a communication line and comparing said measured data and said energy consumption data stored in said database (C. 3, 49-61; C. 5, L. 9-25; C. 6, L. 54-67); wherein said general information includes variable data related to air conditioning and operation condition, including hours of operation, kilowatt hours rates and whether operating hours vary in different places of the facility (C. 6, L. 28-38).

While Yablonowski does teach collecting variable data related to air conditioning (thereby indicating temperature and humidity aspect), Yablonowski does not explicitly teach that said variable data related to air conditioning includes data regarding temperature and humidity of atmosphere.

Kitamura was applied to show means for measuring air temperature and humidity in a facility, a database for storing said measured data regarding air temperature and humidity, and means for calculating of savings in energy consumption based on said stored data (C. 13, L. 47-56).

In response to applicant's argument that Kitamura fails to disclose installing energy-saving equipment and calculating energy-saving measures by

Art Unit: 3639

installing energy-saving equipment and calculating means for retrieving past data within a set allowable range corresponding the measured present data and calculating the energy curtailment quantities by comparing the retrieved past data and the measured present data, it is noted that Yablonowski was applied to this feature (See a discussion above).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Igor Borissov whose telephone number is 571-272-6801. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Igor Borissov
Patent Examiner
Art Unit 3639



IB

12/15/2005